

REMARKS/ARGUMENTS

This is responsive to the Final Office Action mailed June 4, 2010. In that Office Action, claims 31-33 were rejected under 35 U.S.C. §102(e) as being anticipated by Edoga et al., U.S. Patent No. 7,335,212 (“Edoga ‘212 Patent”). Claims 1-17 and 19-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Edoga in view of Miller et al., U.S. Patent No. 6,709,442 (“Miller”). The Examiner’s indication that claim 11 would be allowable if rewritten in independent form is noted with appreciation.

With this Response, claims 1, 17, 22, 28, and 31 have been amended. Claims 1-17 and 19-33 remain pending in the application and are presented for reconsideration and allowance.

FIG. 16 of Edoga Does Not Qualify as Prior Art

In the Response filed March 10, 2010, Applicant argued that FIG. 16 and column 6, lines 30-40 of Edoga ‘212 Patent (alleged to disclose arm pairs receiving separate clips and barbs) does not qualify as prior art as it is not disclosed in Edoga ‘687 Provisional. In response, the Final Office Action contends that FIG. 5 of Edoga ‘687 Provisional shows a staple guide 140 that “includes a protrusion that is mated with a corresponding track or slot provided on the obdurator 118”. The Final Office Action further contends that FIG. 16 of Edoga ‘212 Patent is a cross-sectional view of the device of Edoga ‘687 Provisional. Applicant respectfully disagrees. A review of Edoga ‘687 Provisional FIGS. 4 and 5 reveals that the Examiner-identified “slots” or “tracks” in the obdurator 118 cannot exist, and instead likely reflect an error in the drawings of Edoga ‘687 Provisional. The device of Edoga ‘687 Provisional (and Edoga ‘212 Patent) is premised upon delivering straight wires 134 through respective ones of the guide hooks 140 to create circular staples 158. To properly locate the wires 134/staples 158 for anastomosis, the guide hooks 140 must be splayed apart with distal movement of the obdurator 118. For example, in FIG. 4 of Edoga ‘687 Provisional, the obdurator 118 is in a proximally retracted position, allowing the guide hooks 140 to deflect radially inwardly and permit passage through an opening 115 in the vessel 113. Subsequently, the guide hooks 140 are radially splayed apart via distal movement of the obdurator 118. This is reflected in the view of FIG. 5 of Edoga ‘687 Provisional. The protrusion 148 associated with each of the guide hooks 140 must slide along an outer surface of the obdurator 118 in transitioning between the states of FIGS. 4 and 5. Were the

obdurator 118 to include a “track” erroneously shown in FIGS. 4 and 5, this necessary sliding movement along the obdurator surface could not occur; instead, the protrusion 148 would be captured within the illustrated track, preventing movement of the obdurator 118 relative to the guide hooks 140. FIG. 16 of Edoga ‘212 Patent cannot be a transverse cross-section of FIGS. 4 and 5 of Edoga ‘687 Provisional. Thus, it is respectfully submitted that Edoga ‘687 Provisional does not describe “tracks” or “pathways” within which the hooks/barbs are slidably disposed. Given this explanation, the purported separate pathways of FIG. 16 of Edoga ‘212 Patent is not supported by Edoga ‘687 Provisional.

To the extent the rejections of claims 1-17 and 19-33 are premised upon FIG. 16 of Edoga ‘212 Patent, withdrawal of the rejections is respectfully requested.

35 U.S.C. §§102, 103 Rejections

In addition to the above, each of the independent claims are allowable over the cited art for at least the following reasons.

Independent Claim 1

Independent claim 1 relates to a surgical connection apparatus including a support structure, a plurality of self-closing clips, and a plurality of barbs. Each of the barbs are separate from the clips, and the clips are ejectable from the support structure independent of the barbs. It is respectfully submitted that Edoga ‘212 Patent requires that the clips 134 and hooks/barbs 140 cannot be independent of one another. To the contrary, the hooks/barbs 140 necessarily impart the curved shape onto the wires segments 134 in generating the curved clip 158. Edoga ‘212 Patent is premised upon the wires 134 passing through a corresponding one of the hooks/barbs 140.

In addition, claim 1 has been amended to recite that the clips are ejectable from pathways of the support structure, with these pathways being independent of the barbs. In contrast, the clip-ejecting “pathways” of Edoga ‘212 Patent clearly include the hooks/barbs 140. Thus, amended claim 1 is allowable over the cited art. Claims 2-16 depend from claim 1 and thus, for at least these same reasons, are also allowable.

Independent Claim 17

Independent claim 17 relates to a surgical connection apparatus and recites, amongst other things, a first plurality of arms forming a first plurality of paths, and a second plurality of arms forming a second plurality of paths. Clips are slidably disposed in the first plurality of paths, whereas barbs are slidably disposed in the second plurality of paths. The clips are separate from, and movable independently of, the barbs. As described above, Edoga '212 Patent does not teach or reasonably make obvious at least these features. In addition, claim 17 has been amended to recite that each barb is longitudinally slidably disposed in one path of the second plurality of paths. In contrast, the hooks/barbs 140 of Edoga '212 Patent are not longitudinally slidable. Instead, the hooks/barbs 140 remain longitudinally stationary, and experience only radial deflection in response to movement of the obdurator 118 surface. Importantly, the hooks/barbs 140 must remain longitudinally stationary relative to a remainder of the apparatus (and with movement of the obdurator 118) in order to ensure accurate positioning of the hooks/barbs 140 for clip 158 formation and deployment therethrough.

For at least the above reasons, claim 17 is allowable over the cited art. Claims 19-21 depend from claim 17 and thus, for at least these same reasons, are also allowable.

Independent Claim 22

Independent claim 22 relates to a surgical connection apparatus including a plurality of arm pairs, a plurality of barbs, and a plurality of clips. The plurality of clips are independent of the barbs. As described above, Edoga '212 Patent does not teach or reasonably make obvious at least these features. In addition, claim 22 has been amended to recite that the plurality of arm pairs includes a first plurality of tubular arms and a second plurality of tubular arms. In contrast, regardless of whether the "arm" through which the wires 134 of Edoga '212 Patent pass can be considered "tubular," Edoga '212 Patent does not teach tubular arms within which the hooks/barbs 140 would otherwise be slidably coupled. Instead, the hooks/barbs 140 are exteriorly exposed, and in fact must be exteriorly exposed so as to effectuate the radial splaying (e.g., in transitioning from the radial location of FIG. 4 to that of FIG. 5). Thus, Edoga '212 Patent does not teach the first and second plurality of tubular arms as claimed.

For at least the above reasons, claim 22 is allowable over the cited art. Claims 23-27 depend from claim 22 and thus, for at least these same reasons, are also allowable.

Independent Claim 28

Independent claim 28 relates to a surgical connection apparatus and recites, amongst other things, a plurality of clips and a plurality of barbs coupled to first and second arms, respectively, of a plurality of arm pairs. For the reasons described above, it is respectfully submitted that Edoga '212 Patent does not teach or reasonably make obvious at least these features. In addition, claim 28 has been amended to recite that the plurality of arm pairs of the support structure collectively define a circular perimeter, and that the first and second arms of each arm pair are circumferentially arranged relative to one another. In contrast, even if Edoga '212 Patent could somehow be interpreted as having definitive "arms" for each of the hooks/barbs 140 and clips 134, these "arms" are not circumferentially arranged relative to one another. Instead, the clip "arm" is coaxial with the barb "arm". Thus, amended claim 28 recites additionally allowable subject matter. Claims 29-30 depend from claim 28 and thus, for at least these same reasons, are also allowable.

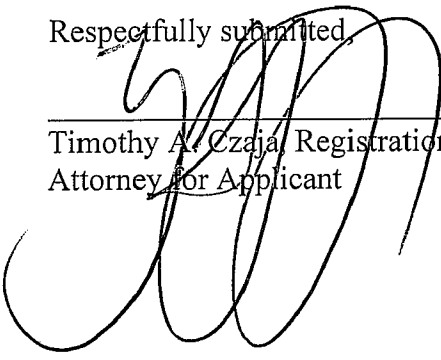
Independent Claim 31

Independent claim 31 relates to a surgical connection apparatus and recites, amongst other things, a plurality of barbs are means for moving the barbs between a first position and a second position. As amended, claim 31 recites that the barbs each terminate at a distal end and that in the first position, the distal ends of the barbs are enclosed within the support structure. In contrast, even if FIG. 4 of Edoga '212 Patent could somehow be viewed as disclosing the hooks/barbs 140 as being circumferentially "inside" an outer diameter of the housing 130, the distal ends of the hooks/barbs 140 are clearly exteriorly exposed. With the device of Edoga '212 Patent, the barb distal ends are never "enclosed within" a support structure. Thus, amended claim 31 is allowable over the cited art. Claims 32 and 33 depend from claim 31 and thus, for at least these same reasons, are also allowable.

CONCLUSION

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to contact Katrina Witschen at Telephone No. (763) 505-8418, Facsimile No. (763) 505-8436.

Respectfully submitted,



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